



4.8.1 Practice: Assignment Practice Name: Isaiah Singh 4/24/2020
ALS Liberal Arts Math 1 Sem 2 *Points Possible: 24*

Answer the following questions using what you've learned from this unit. Write your responses in the space provided.

Scoring: Each question is worth 2 points.

Formulas

Volume of a Pyramid: $V = \frac{1}{3} Bh$

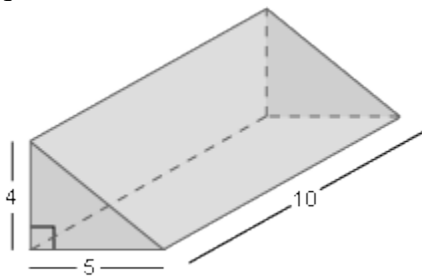
Volume of a Cone: $V = \frac{1}{3} Bh$

Volume of a Prism: $V = Bh$

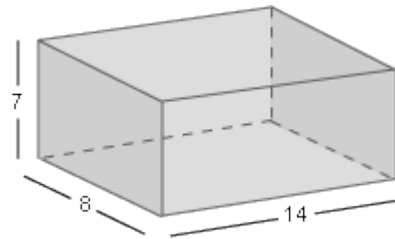
Volume of a Cylinder: $V = Bh$

Volume of a Sphere: $V = \frac{4}{3} \pi r^3$

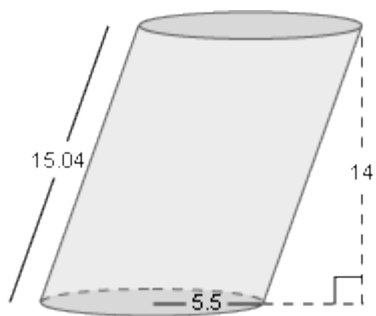
For questions 1 – 8, calculate the volume. If necessary, round to the nearest hundredth.



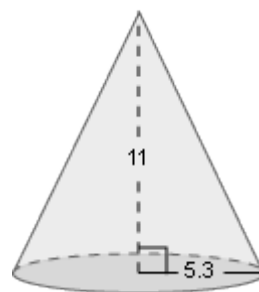
1. **Answer: 200**



2. **Answer: 784**



3. Answer: **1,115**



4. Answer: **58.3**

What is the volume of a sphere that has a radius of 11.5 units?

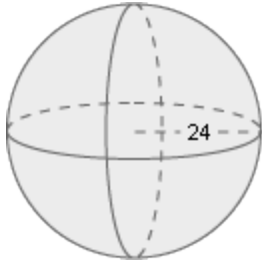
What is the volume of a right cylinder with a radius of 14 units and a height of 31 units?

5. Answer: **6,370.626303 cm³**

6. Answer: **19096 unit²**

7. What is the volume of the sphere given below?

Answer: $57905.835790967 \text{ m}^3$

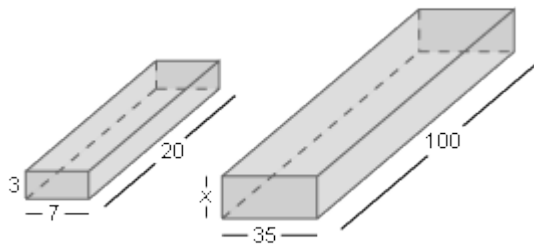


8. What is the volume of a cube with edges of length 4.5 units?

Answer: 91.1 units^3

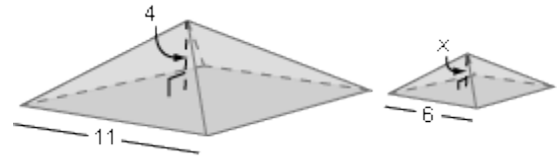
For questions 9 – 10, answer the questions about similar solids.

9. The two prisms below are similar. What is the value of x ?



Answer: $x = 7$

10. The two pyramids below are similar. What is the value of x , to the nearest hundredth?



Answer: $x = 12$

For questions 11-12, answer the questions about similar solids.

11. The ratio between the radii of two spheres is 9:2. What is the ratio of their volumes?

Answer: $729/8$

12. If two cones are similar and the ratio between the lengths of their radii is 7:3, what is the ratio of their surface areas? **Answer: $49/9$**